

## ASSESSING THE TEMPORAL COURSE OF NEOINTIMAL HYPERPLASIA FORMATION AFTER DIFFERENT GENERATIONS OF DRUG-ELUTING STENTS

i2 Poster Contributions

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**Background:** The amount of intimal hiperplasia (IH) following DES implantation correlates with the potency of the anti-proliferative drug, its kinetic release as well as some individual characteristics, as the presence of diabetes mellitus (DM). Recently, some publications have suggested a continuous growth of IH following DES, which in some cases, might result in "late-catch up". We sought to assess the impact of DM in the temporal course of IH formation following the implantation of two different generation of DES.

**Methods:** 25 pts with single, de novo lesions in native coronary arteries of 2-5-3.5mm were treated with Cypher- SES (n=12) and Biomatrix - BES (n=13) and underwent IVUS evaluation post procedure, at 6 months and 5 years. The main goal was to assess the variation in IH volume in different timepoints according to the type of stent used and DM status.

**Results:** The mean age was 58yrs, with 28% of DM. Baseline characteristics did not differ. Overall, % of IH obstruction markedly increased from mid to long term FU (% IH obstruction of 1.3% at 1st FU vs 4.8% 2nd FU,  $p=0.002$ ) without significant differences according to stent type ( $\Delta = 3.83\%$  SES vs.  $\Delta = 3.06\%$  BES,  $p=0.52$ ). However, diabetic pts had a marked IH increase along the years (chart).

**Conclusion:** The present serial IVUS assessment supports the occurrence of continuous IH growth following different generations of DES, being the effect more noticeable among diabetic pts. Larger clinical trial should assess whether these findings translate into "late catch-up".

